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Response dated April 17, 2006
Reply to Non-Final Office Action dated 11/15/05

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Kindly amend the claims as follows:

1. (Withdrawn) A satellite transceiver for a personal computer, comprising:

a card that plugs into the personal computer that includes:

a transmitting section transmitting radio frequency signals responsive to data received from an industry standard bus in the computer, and

a receiving section receiving radio frequency signals and converting the received signals to data for transfer to the industry standard bus in the computer; and

a PCI to PCI bridge that couples industry standard buses in both the receiving section and the transmitting section with the industry standard bus in the personal computer.

2. (Withdrawn) The transceiver according to claim 1, further comprising: an auxiliary bus directly connecting the transmitting section and the receiving section without passing through the PCI to PCI bridge.

3. (Withdrawn) The transceiver according to claim 2, wherein a synchronizing signal is conveyed from the receiving section to the transmitting section via the auxiliary bus.

4. (Withdrawn) The transceiver according to claim 1, wherein the transmitting section includes a frequency synthesizer for generating the radio frequency signals.

5. (Withdrawn) The transceiver according to claim 4, wherein the frequency generated by the frequency synthesizer is set by a controller on the card.

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6. (Withdrawn) The transceiver according to claim 4, wherein the frequency generated by the frequency synthesizer is set by conveying instructions via the bus.

7. (Withdrawn) The transceiver according to claim 1, wherein the card is coupled to an external antenna system, and further comprising a connector, through which a DC source external to the card powers the antenna system.

8. (Withdrawn) The transceiver according to claim 7, wherein the transmitting section includes radio frequency modulation circuitry and the modulation circuitry is coupled to convey the radio frequency signals to the antenna system via the connector.

9. (Withdrawn) A transceiver according to claim I, wherein the transmitting section includes radio frequency modulation circuitry and the modulation circuitry modulates the transmitted signals according to a predefined protocol in accordance with a command conveyed to the card via the industry-standard bus.

10. (Withdrawn) A transceiver according to claim 1, wherein the transmitting section includes modulation circuitry and the modulation circuitry includes an encoder that encodes error correction into the transmitted signals according to a predefined protocol in accordance with a command conveyed to the encoder via said industry-standard bus.

11. (Withdrawn) A transceiver according to claim I, wherein the signals are transmitted to a satellite.

12. (Canceled) A satellite transceiver for a personal computer, the personal computer having a USB port, the transceiver comprising:

a transmitter card that resides in a box external to the computer and that transmits

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radio frequency signals responsive to data received from the personal computer via the USB port; and

a receiver card that resides in the external box and that receives radio frequency signals and converts the received signals to data for transfer to the personal computer via the USB port.

13. (Currently amended) A satellite transceiver for a personal computer, the personal computer having a USB type port, the transceiver comprising:

a transceiver transmitter card that resides in a box external to the computer and that transmits radio frequency signals responsive to data received from the personal computer via the USB type port; and

~~a receiver card that resides in the external box and that receives radio frequency signals and converts the received signals to data for transfer to the personal computer via the USB type port, wherein the transceiver transmitter card and the receiver card include respective USB interfaces, the transceiver further includes a ing a USB network hub, which couples the USB port to said USB interfaces via a USB bus, the transceiver including a satellite antenna interface for coupling an external power supply to an external satellite antenna amplifier via a connection which transmits radio frequency signals.~~

14. (Currently amended) The transceiver according to claim 13, further including an auxiliary bus directly connecting the transmitter card portion and a receiver card portion of the transceiver card and the receiver card.

15. (Currently amended) A satellite transceiver for a personal computer, the personal

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computer having a USB port, the transceiver comprising:

a transmitter ~~portion~~ card that resides in a box external to the computer and that transmits radio frequency signals responsive to data received from the personal computer via the USB type port; and

a receiver ~~portion~~ card that resides in the external box and that receives radio frequency signals and converts the received signals to data for transfer to the personal computer via the USB type port, further including an auxiliary bus directly connecting the transmitter card and the receiver card, wherein a synchronizing signal is conveyed from the receiver ~~portion~~ card to the transmitter ~~portion~~ card via the auxiliary bus and including a programmable frequency synthesizer and programmable modulator for allowing a transmission/reception frequency and modulation to be selectively modified by the personal computer.

16. (Currently amended) The transceiver according to claim 15, wherein the transmitter ~~portion~~ card and the receiver ~~portion~~ card further comprise respective connectors coupling the cards to the auxiliary bus.

17. (Cancelled) A satellite transceiver for a personal computer, the personal computer having a USB port, the transceiver comprising:

a transmitter card that resides in a box external to the computer and that transmits radio frequency signals responsive to data received from the personal computer via the USB port; and

a receiver card that resides in the external box and that receives radio frequency signals and converts the received signals to data for transfer to the personal computer via the USB port,

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further including an internal DC source residing in the box for supplying power to the transmitter card and the receiver card.

18. (Previously amended) The transceiver according to claim 15, wherein the transmitter ~~portion~~card includes a frequency synthesizer for generating the radio frequency signals.

19. (Cancelled) A satellite transceiver for a personal computer, the personal computer having a USB port, the transceiver comprising:

a transmitter card that resides in a box external to the computer and that transmits radio frequency signals responsive to data received from the personal computer via the USB port; and

a receiver card that resides in the external box and that receives radio frequency signals and converts the received signals to data for transfer to the personal computer via the USB port, wherein the transmitter card includes a frequency synthesizer for generating the radio frequency signals, wherein the frequency generated by the frequency synthesizer is set by a controller on the transmitter card.

20. (Cancelled) The transceiver according to claim 19, wherein the frequency generated by the frequency synthesizer is set by conveying instructions via the USB port.

21. (Cancelled) The transceiver according to claim 19, wherein the transceiver is coupled to an external antenna system, further comprising a connector, through which a DC source, internal to the box, powers the antenna system.

22. (Cancelled) A transceiver according to claim 21, wherein the transmitter card includes radio frequency modulation circuitry that is coupled to convey the radio frequency

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signals to the antenna system via the connector.

23. (Cancelled) A transceiver according to claim 19, wherein the transmitter card includes radio frequency modulation circuitry and the modulation circuitry modulates the transmitted signals according to a predefined protocol in accordance with a command conveyed to the card via the USB port.

24. (Previously amended) A transceiver according to claim 15, wherein the transmitter card includes modulation circuitry and the modulation circuitry includes an encoder that encodes error correction into the transmitted signals according to a predefined protocol in accordance with a command conveyed to the encoder via the USB port.

25. (Currently amended) The transceiver according to claim 13, wherein the radio frequency signals of the transmitter card are transmitted to a satellite.

26. (Currently amended) A method for transmitting and receiving signals between a satellite and a personal computer having a USB port, the method comprising steps of:

coupling a transmitter ~~card~~ that resides in a box external to the personal computer to a USB hub through a portion of a USB bus;

coupling the USB hub to the USB port;

transmitting a radio frequency signal from the transmitter ~~card~~ responsive to data received from the USB port;

coupling a receiver ~~card~~ that resides in the box to the USB hub through another portion of the USB bus;

receiving the radio frequency signal in the receiver ~~card~~; and

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converting the radio frequency signal to data for transfer to the USB port, wherein the step of receiving the radio frequency signal includes conveying a synchronizing signal from the receiver card to the transmitter card via the auxiliary bus, and where the transmitter is configured for receiving a power signal from a power supply external to the box and for transmitting the power signal to an amplifier in an antenna.

27. (Canceled) The method according to claim 26, further comprising a step of coupling the transmitter and receiver cards together directly via an auxiliary bus.

28. (Canceled) The method according to claim 26, further comprising steps of:

mounting a power connector on the box, and

powering an antenna system external to the box via the power connector.

29. (Canceled) The method according to claim 26, further comprising a step of determining a frequency band of the signal using the data received by the transmitter card.

30. (Canceled) The method according to claim 26, wherein the step of the transmitting radio frequency signal includes modulating the radio frequency signal in accordance with a modulation scheme determined responsive to a command conveyed via the USB port.

31. (Original) The method according to claim 26, wherein the step of the transmitting radio frequency signal includes encoding an error correction onto the radio frequency signal in accordance with an encoding scheme determined responsive to a command conveyed via the USB port.

32. (Canceled) The method according to claim 26, wherein the step of transmitting the radio frequency signal includes transmitting the radio frequency signal to the satellite.

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33. (Canceled) A method according to claim 26, wherein the step of receiving the radio frequency signal includes conveying a synchronizing signal from the receiver card to the transmitter card via the auxiliary bus.

34. (Currently amended) A method for transmitting and receiving signals between a satellite and a personal computer, the method comprising steps of:

coupling a ~~single~~ transceiver card to an industry-standard bus in the computer;
transmitting a radio frequency signal from the ~~single~~ transceiver card responsive to data from the bus; ~~and~~
receiving radio frequency signal transmitted to the ~~single~~ transceiver card and converting the received radio frequency signals to data for transfer to the bus; and
powering an amplifier of an antenna system external to the transceiver card using power from a signal connector on the transceiver card.

35. (Currently amended) ~~The method according to claim 34, A method for transmitting and receiving signals between a satellite and a computer, the method comprising steps of:~~

transmitting radio frequency signals from a bus of the computer to the satellite via a transceiver card;
receiving radio frequency signals from the satellite to a bus of the computer via the transceiver card and converting the received radio frequency signals to data for transfer to the computer;
recovering a synchronizing clock from the signals received by the transceiver card from the satellite; and

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~~_____ further comprising a step of coupling the transmitting section and receiving sections~~
coupling a transmitting section and a receiving section of the transceiver card directly together
directly via an auxiliary bus, separate from the computer, for transferring the synchronizing
clock from the receiving section to the transmitting section from the industry standard bus.

36. (Currently amended) The method according to claim 34, further comprising a step of
~~mounting a power connector on the card, and powering an antenna system external to the card~~
~~via the power connector~~ powering the transceiver card using power from a power supply external
to the transceiver card and external to the computer via the signal connector.

37. (Currently amended) ~~The method according to claim 34~~ A method for transmitting
and receiving signals between a satellite and a computer, the method comprising steps of:

~~_____~~ transmitting radio frequency signals from a bus of the computer to the satellite via
a transceiver card;

~~_____~~ receiving radio frequency signals from the satellite to a bus of the computer via
the transceiver card and converting the received radio frequency signals to data for transfer to the
computer;

~~_____~~ further comprising a step of determining a frequency band of the transmitted
radio frequency signals using the data conveyed to the transceiver card from the computer in
order to program a synthesizer in the transceiver card;

~~_____~~ coupling power from a power supply and signals from the synthesizer to a
connector on the transceiver card.

38. (Currently amended) ~~The method according to claim 34~~ A method for
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transmitting and receiving signals between a satellite and a personal computer, the method comprising steps of:

coupling a transceiver card to a bus in the computer;

transmitting a radio frequency signal from the transceiver card responsive to data from the bus;

receiving radio frequency signal transmitted to the transceiver card and converting the received radio frequency signals to data for transfer to the bus, wherein the step of transmitting the radio frequency signal includes modulating the signal in accordance with a phase shift keying modulation scheme determined responsive to a command conveyed via the bus.

39. (Currently amended) ~~The method according to claim 34A~~ a method for transmitting and receiving signals between a satellite and a personal computer, the method comprising steps of:

coupling a single transceiver card to an industry-standard bus in the computer;

transmitting a radio frequency signal from the single transceiver card responsive to data from the bus; and

receiving radio frequency signal transmitted to the single transceiver card and converting the received radio frequency signals to data for transfer to the bus, wherein the step of transmitting the radio frequency signal includes encoding an error correction onto the radio frequency signal in accordance with an encoding scheme determined responsive to a command conveyed via the bus.

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40. (Currently amended) The method according to claim 34, wherein the step of transmitting the radio frequency signal includes transmitting the radio frequency signal to the satellite using the signal connector, wherein the transceiver card includes a connector for a power supply external to the computer and external to the transceiver card.

41. (Currently amended) ~~A method according to claim 35~~ A method for transmitting and receiving signals between a satellite and a personal computer, the method comprising steps of:

coupling a single transceiver card to an industry-standard bus in the computer;

transmitting a radio frequency signal from the single transceiver card responsive to data from the bus; and

receiving radio frequency signal transmitted to the single transceiver card and converting the received radio frequency signals to data for transfer to the bus, wherein the step of receiving the radio frequency signal includes conveying a synchronizing signal from the receiving section card transmitting section via the auxiliary bus.